FOSTER AN EXTRAORDINARY WORKPLACE

NEURODIVERSITY

TOPIC OVERVIEW

Jen C. Brandt, MSW, LISW-S, Ph.D. (she/her/hers)

AWARENESS

What is neurodiversity?

Neurodiversity is "the idea that people experience or interact with the world around them in many different ways—some that may not be considered typical. It is based on the framework that 'different' is not the same as 'deficient'" (Gregory, 2022).

UNDERSTANDING

Key take-home messages.

1 Instead of viewing differences as deficits, recognize that neurodivergent individuals contribute unique talents and skills to the team.

2 Support neurodivergent team members by asking them what they want and need.

3 Regularly seek input, feedback, and perspectives from employees who are neurodivergent.

TRANSFORMATION

Specific actions you can take to generate positive DEI change with your team, workplace, clients, and community.

1 Get a helpful checklist to foster neurodiversity inclusion in your workplace from the Employer Assistance and Resource Network: https://askearn.org/publication/neurodiversity-inclusion-checklist

2 Learn seven easy ways to make your job descriptions more accessible for neurodivergent job seekers: https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/global-and-cultural-effectiveness/pages/how-to-optimize-job-descriptions-for-neurodivergent-job-seekers.aspx

3 Designate certain areas of the workplace as sensory-friendly—where lighting, sound, equipment settings, and privacy levels can be adjusted to meet individual needs. Check out the attached sheet to the 3-2-1 Discussion Guide about universal design for ways to implement changes that benefit everyone.

4 Read an article on neurodiversity and reflect on how individuals experience and interact with the world around them: https://hbr.org/2021/12/autism-doesnt-hold-people-back-at-work-discrimination-does

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TOPIC ESSAY
Neurodiversity

Discussions on neurodiversity are complex, multifaceted, and continuously evolving. Although definitions vary, neurodiversity is "the idea that people experience or interact with the world around them in many different ways—some that may not be considered typical. It is based on the framework that 'different' is not the same as 'deficient'" (Gregory, 2022). Neurodiversity is intersectional and not limited to individuals of a specific sex, gender identity, race, age, ethnicity, intellectual ability, or social class (Thompson, 2022). "Neurodiversity may be every bit as crucial for the human race as biodiversity is for life in general. Who can say what form of wiring will prove best at any given moment?" (Harvey Blume, as cited in Flach, 2023). It is estimated that 15%–20% of the population is neurodivergent (Doyle, 2020).

Glossary of Terms

Masking: "The practice of concealing or suppressing aspects of one's neurodivergent traits or conditions, in order to fit in with the norms of the workplace or society" (Howard, 2023).

Neurodiversity: "The idea that people experience or interact with the world around them in many different ways—some that may not be considered typical. It is based on the framework that 'different' is not the same as 'deficient'" (Gregory, 2022).
"Our organization utilizes multiple forms of communication in recognition of the neurodiversity of our clients and employees."

Neurodivergent: Someone who processes information and behaves in a way that differs from the actual or perceived norms of a particular culture (Medical News Today, 2022).
"This employee resource group is for those who identify as neurodivergent."

Neurotypical: "Someone who thinks and processes information in ways that are typical within their culture. They tend to learn skills and reach developmental milestones around the same time as their peers" (Medical News Today, 2022).
"My mother is neurotypical."

Neurodiverse: A group in which multiple neurocognitive styles are represented (Fletcher-Watson, n.d.).
"My family is neurodiverse."

Neurodiversity Movement: A movement aimed at increasing "acceptance and inclusion of all people while embracing neurological differences" (Baumer & Frueh, 2021).

Neurodiversity Paradigm: "The neurodiversity paradigm values all neurodivergences as natural, worthy, and potentially beneficial manifestations of human diversity … The neurodiversity paradigm doesn't reject the narratives of how problematic and complicated it can be to live as a neurodivergent person. It does, however, ask that neurodivergences be considered without judgment; it advocates for abandoning models that construct neurodivergence as 'less than,' 'defective,' and 'broken'" (Heyworth, 2021).

Pathology Paradigm: The pathology paradigm "holds that there is one 'right' or 'normal' kind of neurocognitive functioning. Anything that diverges from the norm is considered a deficit or disorder" (Ursa, 2022).

The following is a brief overview of three forms of neurodivergence: dyslexia, attention deficit hyperactivity disorder (ADHD), and autism spectrum disorder (ASD). It is important to note, however, that no group is a monolith. Whether we identify as neurodivergent or neurotypical, our experiences can be highly individualized, and our environments can enhance or inhibit our performance. We can all possess talents or skills at certain tasks, or in certain settings, yet find others challenging (Engelbrecht & Silvertant, 2023).

Dyslexia

Dyslexia is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling. Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory, and verbal processing speed. Dyslexia occurs across the range of intellectual abilities (British Dyslexia Association, n.d.).

Studies have shown that people with dyslexia often have high visual-spatial skills (e.g., having a strong sense of navigation, proportion, and distance). Individuals with dyslexia often excel at creating innovative solutions, leveraging memory for efficient learning, and reasoning skills in simplification, analysis, decision-making, strategic visioning, identifying patterns, and assessing information logically (Neff, n.d.). In medical students, visual-spatial abilities predict performance in medical gross anatomy (Lufler et al., 2012). Interpretation of medical images and performing surgical tasks rely strongly on spatial representations and information (Possin, 2010). In addition, individuals with high visual-spatial skills may be especially observant of even subtle changes in a patient's physical appearance—details that others might miss.

Dyslexia affects approximately 20% of the population or over 1.6 billion people (The Yale Center for Dyslexia and Creativity, 2017).

Attention Deficit Hyperactivity Disorder

ADHD is a highly genetic, brain-based syndrome that impacts executive function and self-regulation skills (Frank, 2015), i.e., "the mental processes that enable us to plan, focus attention, remember, and juggle multiple tasks" (Harvard University, 2015). ADHD is generally categorized into three types (Johns Hopkins Medicine, 2023; Jeczmien, 2022; ADDA Editorial Team, 2023).

• *Combined type* represents the majority of all ADHD in adults and is characterized by impulsive and hyperactive behaviors as well as inattention and distractibility.

• *Hyperactive-Impulsive type* is characterized by hyperactive and impulsive behaviors without inattention and distractibility (e.g., speaking at inappropriate times, interrupting others, difficulty waiting one's turn, fidgeting, and feeling restless).

• *Inattentive type* is characterized by difficulty with planning, task completion, following directions or instructions, or attending to routine tasks. Individuals may be easily distracted by irrelevant sights and sounds, initiate multiple tasks without completing them, or become easily bored.

Individuals with ADHD often demonstrate strengths in creativity and out-of-the-box thinking, hyperfocus (i.e., complete immersion in an activity and ability to block out any distractions), sustained levels of high energy, high attention to detail, willingness to take risks and try new approaches, and a continuous source of new methods and strategies for solution seeking (ADDA Editorial Team, 2023). Individuals with ADHD who excel at problem-solving and creativity may be exceptionally good at divergent thinking tasks, such as inventing creative new uses for everyday objects. This could mean the difference between life or death during emergency field work when veterinary professionals may not have access to a full range of supplies. Individuals with ADHD who can hyperfocus for long periods may play a critical role in helping a team complete a high-value task at a high level of quality on deadline.

Estimates for adult ADHD vary. The global prevalence of persistent adult ADHD is estimated at 2.58%, or 139.84 million adults, and that of symptomatic adult ADHD at 6.76%, or 366.33 million adults (Song, 2021).

Autism Spectrum Disorder

ASD constitutes a diverse group of conditions related to the development of the brain that affect "how people interact with others, communicate, learn, and behave" (NIMH, 2023; WHO, 2023). "The term 'spectrum' refers to the wide range of symptoms, skills, and levels of ability in functioning that can occur in people with ASD" (National Institute of Neurological Disorders and Stroke, n.d.)

Challenges commonly associated with ASD include the following:

• Misreading or failing to read emotions, intentions, or cues from others
• Rigid/inflexible thinking
• Difficulty discerning between literal and abstract meanings (e.g., "I've talked until I'm blue in the face" vs. "I'm tired of talking" or "May I pick your brain?" vs. "May I ask you a question?")
• Sensory overload
• Sensitivity to sensory input such as light, sound, clothing, or temperature
• Sensitivity to transitions or changes in routine
• Higher risk of adverse events and trauma

Strengths commonly associated with ASD include the following:

• Hyperfocus and high attention to detail
• Acute hearing and superior auditory discrimination
• Encyclopedic knowledge
• Powerful memory system
• Creativity and accelerated problem-solving
• Superior recognition and processing of complex patterns
• Rational decision-making

(NIMH, 2023; The Spectrum, n.d.; Engelbrecht & Silvertant, 2023; Remington & Fairnie, 2017; Lobregt-van Buuren et al., 2021).

Individuals who excel at complex pattern recognition and processing have an increased capacity to identify patterns in visual or auditory stimuli, see the big picture, and recognize similarities and differences. This "approach to pattern recognition can ... lead to breakthrough discoveries in scientific and creative fields ... The ability to recognize patterns in large sets of data can help businesses gain insights into consumer behaviour and develop effective marketing strategies. In medicine, pattern recognition skills can help doctors diagnose diseases more accurately and efficiently" and develop new treatments (Campbell, 2023).

Although estimates vary, a 2022 study found that the global prevalence of autism is approximately 1% of the population, or 80 million people (Zeidan et al., 2022). This is widely considered to be an underestimate "given the current low levels of awareness and recognition of [neurodivergence], particularly in women and girls and people from ethnic minorities" (Bell, 2023).

Now What?

Universal Design for Learning (UDL)

Many individuals do not have resources to engage in the extensive testing that is often a prerequisite to accessing medication, therapy, and other accommodations (Joho, 2021). Further, those who have been formally assessed and identified as neurodivergent may choose not to self-identify due to stigma and the risk of discrimination. These barriers are important to acknowledge, particularly given the lockstep teaching and instructional design prevalent in medical education. Importantly, UDL strategies build in flexibility that can be adjusted for every student's strengths and needs. UDL "is a learning framework for curriculum and course development rooted in three areas: multiple means of representation of information, multiple means of student action and expression, and multiple means of student engagement" (CETL, 2023). Instructors interested in applying UDL strategies in the classroom may consider a "plus one" approach—adding just one new strategy at a time to their current courses (CETL, 2023). Some examples of UDL strategies (CETL, 2023) include the following:

• Communicate information in multiple formats: verbal, email, an announcement on the course management system (e.g., Canvas, Blackboard)
• Consider various assignment formats: written, short video presentation, oral report, hands-on demonstration
• Break up long sections of text using bullet points or images
• Chunk large assignments into smaller deliverables and provide opportunities for feedback throughout
• Offer flexibility in choosing in-person or remote learning
• Offer short breaks during class

> "...those who have been formally assessed and identified as neurodivergent may choose not to self-identify due to stigma and the risk of discrimination. These barriers are important to acknowledge and address, particularly given the lockstep teaching and instructional design prevalent in medical education."

• Use active learning engagement strategies (case studies, panel discussions, think-pair-share, etc.)

For a deeper dive on UDL, see https://udlguidelines.cast.org/.

For a deeper dive into active learning in medical education, see https://oakland.edu/Assets/Oakland/medicine/files-and-documents/ceme/Resources/Active%20learning%20in%20medical%20education%20Strategies%20for%20beginning%20implementation%20(1).pdf

Supporting Neurodiversity in the Workplace

The modern workplace is challenging for many people, regardless of how they identify—neurodivergent, neurotypical, different, or disabled. The constant demands on sensory processing, including high volumes of information at high rates of speed, can lead to overload, particularly for individuals who may require specific parameters to do their best work. Planners of neurodivergent-friendly workspaces recognize that one size does not fit all and embrace the inherent diversity of people in a shared environment—ultimately benefitting the health and wellbeing of all employees (Berthold et al., 2022; Insightful Environments, n.d.). Principles to consider in supporting neurodiversity in the workplace include the following:

• *Nothing About Us Without Us* communicates the idea that no policy should be decided by any representative without the full and direct participation of those affected by that policy (Wikipedia Contributors, 2018). Workplace design must include members of the neurodivergent community as full partners in the process (Praslova, 2021).

• *Universal Design (UD)* "is a strategy for making products, environments, operational systems, and services welcoming and usable to the most diverse range of people possible" (U.S. Department of Labor, n.d.). "With universal design, inclusion becomes an integral part of the structure of the company culture … Inclusion isn't an afterthought … It is built into mission statements, company handbooks, meeting guidelines, and business processes" (Ciampi, n.d.). The key principles of UD are simplicity, flexibility, efficiency, and autonomy of choice (Universal Design Resources, n.d.).

Looking for a starting point on universal design? See JFT's Accessibility in the Workplace module. For a deeper dive on universal design strategies in the workplace, see the Employer Assistance and Resource Network on Disability Inclusion's Neurodiversity in the Workplace, at https://askearn.org/page/neurodiversity-in-the-workplace. ▪

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Jen C. Brandt, MSW, LISW-S, PhD (she/her/hers)

Dr. Brandt is a sociologist, suicidologist, and social worker specializing in the field of veterinary medicine. She currently serves as AVMA's director of wellbeing and diversity initiatives, spearheading the development and implementation of education and outreach efforts at the intersection of diversity, equity, inclusion, and wellbeing in the workplace. Dr. Brandt co-developed AVMA's Train the Trainer Wellbeing Educator and Workplace Wellbeing and Brave Space certificate programs.

Known as a pioneer and enduring advocate for DEI, mental health, and wellbeing, Dr. Brandt co-founded The Ohio State University College of Veterinary Medicine's Honoring the Bond program, one of the nation's first university-based interdisciplinary efforts aimed at supporting all members of the veterinary team through a culturally informed, strength-based approach. In recognition of her lifelong contributions to healthcare services, Dr. Brandt was elected a distinguished fellow of the National Academies of Practice in Social Work.

RESOURCES

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